Carbohydrate Research, 247 (1993) C7–C9
Elsevier Science Publishers B.V., Amsterdam

CONTENTS

Analysis of pectate lyase-generated oligogalacturonic acids by high-performance anion-exchange chromatography with pulsed amperometric detection
A.T. Hotchkiss, Jr. and K.B. Hicks (Philadelphia, PA, USA) 1

Purification and characterization of biologically active 1,4-linked α-D-oligogalacturonides after partial digestion of polygalacturonic acid with endopolygalacturonase
M.D. Spiro, K.A. Kates, A.L. Koller, M.A. O'Neill, P. Albersheim and A.G. Darvill (Athens, GA, USA) 9

Determination of the pattern of methyl esterification in pectin. Distribution of contiguous nonesterified residues
A.J. Mort, F. Qiu and N.O. Maness (Stillwater, OK, USA) 21

The tetrasaccharide nystose trihydrate: Crystal structure analysis and hydrogen bonding
G.A. Jeffrey and D.-b. Huang (Pittsburgh, PA, USA) 37

Computer modeling of the tetrasaccharide nystose
A.D. French (New Orleans, LA, USA), N. Mouhous-Riou and S. Pérez (Nantes, France) 51

The crystal structure and conformational analysis of substituted 2,7-dioxabicyclo[4,1,0]heptanes: 1,2-anhydro-3,4,6-tri-*O*-benzyl-β-D-talopyranose
G. Li, L. Jiang, F. Kong and J. Liu (Beijing, China) 63

The conformational analysis of methyl β-xylobioside: effect of choice of potential functions
A.J. Duben (Cape Girardeau, MO, USA), M. Hricovini and I. Tvaroška (Bratislava, Slovakia) 71

Crystal structure of 6-*O*-[(*R*)-2-hydroxypropyl]cyclomaltoheptaose and 6-*O*-[(*S*)-2-hydroxypropyl]cyclomaltoheptaose
K. Harata (Ibaraki, Japan), C.T. Rao and J. Pitha (Baltimore, MD, USA) 83

Microscopic protonation constants in tobramycin. An NMR and pH study with the aid of partially *N*-acetylated derivatives
L. Szilágyi, Z.Sz. Pusztahelyi, S. Jakab and I. Kovács (Debrecen, Hungary) 99

The crystal and molecular structures of four heptitol heptaacetates
P. Köll, M. Bischoff (Oldenburg, Germany), M. Morf, B. Zimmer and J. Kopf (Hamburg, Germany) 111

The crystal and molecular structure of threitol
J. Kopf, M. Morf, B. Zimmer, E.T.K. Haupt, O. Jarchow (Hamburg, Germany) and P. Köll (Oldenburg, Germany) 119

Determination of proton–proton distances in 2-acetamido-2-deoxy monosaccharides from ^{1}H NMR relaxation measurements in solution
L. Szilágyi (Debrecen, Hungary) and P. Forgó (Budapest, Hungary) 129

Synthesis of 3-deoxy-2-octulosonic acid derivatives and characterization of their 3-deoxyoctitols
T. Krülle (Konstanz, Germany), O. Holst, H. Brade and R.R. Schmidt (Borstel, Germany) 145

A convenient synthesis of *N*-acetyllactosamine derivatives from lactal
A. Toepfer and R.R. Schmidt (Konstanz, Germany) 159

Tri-*O*-benzoyl-β-L-rhamnopyranosyl and β-L-fucopyranosyl isothiocyanates. Partially protected β-L-rhamnopyranosylenamines
J. Fuentes-Mota, E. López-Barba, I. Robina (Sevilla, Spain), J. Molina Molina and D.P. Olea (Granada, Spain) 165

Characterization of inhibitory activities and binding mode of synthetic 6′-modified methyl *N*-acetyl-β-lactosaminide toward rat liver CMP-D-Neu5Ac: D-galactoside-(2 → 6)-α-D-sialyltransferase
Y. Kajihara, H. Kodama, T. Wakabayashi, K.-i. Sato and H. Hashimoto (Yokohama, Japan) 179

Synthesis of chlorodeoxy trisaccharides related to the *Shigella flexneri* Y polysaccharide
F.-I. Auzanneau and D.R. Bundle (Ottawa, ON, Canada) 195

On the formation of 2,3-dihydroxyacetophenone from pentoses or hexuronic acids
T. Ahmad, R. Andersson, K. Olsson and O. Theander (Uppsala, Sweden) 211

On the formation of reductic acid from pentoses or hexuronic acids
T. Ahmad, R. Andersson, K. Olsson and E. Westerlund (Uppsala, Sweden) 217

Enhanced production of γ-cyclodextrin from corn syrup solids by means of cyclododecanone as selective complexant
J.A. Rendleman, Jr. (Peoria, IL, USA) 223

Lengthening of the carbon chain of sugars by the $CH(NO_2) \cdot CH(OEt)_2$ fragment. A route to higher 2-amino-2-deoxyaldoses
R. Fernández, C. Gasch, A. Gómez-Sánchez, J.E. Vílchez, A. López Castro, M.J. Diánez, M.D. Estrada and S. Pérez-Garrido (Seville, Spain) 239

Structure of the O19 antigen of *Xanthomonas maltophilia*
A.M. Winn, L. Galbraith, G.S. Temple and S.G. Wilkinson (Hull, UK) 249

Structural studies of the *Escherichia coli* O127 O-antigen polysaccharide
G. Widmalm and K. Leontein (Stockholm, Sweden) 255

"Fast moving" and "slow moving" heparins, dermatan sulfate, and chondroitin sulfate: qualitative and quantitative analysis by agarose-gel electrophoresis
N. Volpi (Modena, Italy) 263

Internal structure of the potato starch granule revealed by chemical gelatinization
J.-l. Jane and J.J. Shen (Ames, IA, USA) 279

Characterization of the oligosaccharide structures on bee venom phospholipase A_2
T. Hollander, P.A. Aeed and Å.P. Elhammer (Kalamazoo, MI, USA) 291

Notes

Molar-response factors for the quantitative analysis of fully methylated methyl 2-acetamido-2-deoxyhexopyranosides by gas–liquid chromatography with flame-ionization detection
A.J. D'Ambra and G.R. Gray (Minneapolis, MN, USA) 299

Crystal and molecular structure of 2,3,4-tri-*O*-acetyl-β-D-arabinopyranosyl azide
P. Luger (Berlin, Germany) and Z. Györgydeák (Debrecen, Hungary) 305

Synthesis of the terminal trisaccharide unit of the lipo-oligosaccharide from *Mycobacterium linda*
M.K. Gurjar and N.R. Srinivas (Hyderabad, India) 309

Synthesis of branched-chain sugars with methiniminium salts
H. Feist, K. Peseke (Rostock, Germany) and P. Köll (Oldenburg, Germany) 315

Syntheses of the octyl and tetradecyl glycosides of 3,6-di-*O*-α-D-mannopyranosyl-α-D-mannopyranose and of 3,4-di-*O*-α-D-mannopyranosyl-α-D-mannopyranose. A new way for 2,4-di-*O*-protection of mannopyranosides
S. Oscarson and A.-K. Tidén (Stockholm, Sweden) 323

Structure of glycosylamines and diglycosylamines in the arabinose, mannose, and rhamnose series
K. Linek, J. Alföldi (Bratislava, Slovak Republic) and J. Defaye (Grenoble, France) 329

Reinvestigation of the structure of the pyrene-1-carboxylic acid–heptakis(2,6-di-*O*-methyl)cyclomaltoheptaose complex in water
H. Sugiyama (Sendai, Japan), A. Tajiri (Hirosaki, Japan), N. Kobayashi, T. Yokoyama, K. Sasaki (Sendai, Japan) and N. Fujii (Tokyo, Japan) 337

An imino-linked carba-disaccharide α-D-mannosidase inhibitor
S. Cottaz, J.S. Brimacombe and M.A.J. Ferguson (Dundee, UK) 341

Controlled acid hydrolysis of an O-antigen fragment yields univalent heptasaccharide haptens containing one 3,6-dideoxyhexose epitope
H. Baumann, E. Altman and D.R. Bundle (Ottawa, ON, Canada) 347

A cellobiose phosphorylase from *Cellvibrio gilvus* recognizes only the β-D-form of 5a-carba-glucopyranose
M. Kitaoka (Ibaraki, Japan), S. Ogawa (Yokohama, Japan) and H. Taniguchi (Ibaraki, Japan) 355

Publisher's note v

Editors note ix

Author index C1

Subject index C3

Contents C7